Surge Protection
For Business-Critical Continuity™

Communications/Data/Signal Line Surge Protection

Product Catalog

EMERSON™
Network Power

Mission-Critical Voice and Data Signal Protection

Unmatched Protection for Peace of Mind ...

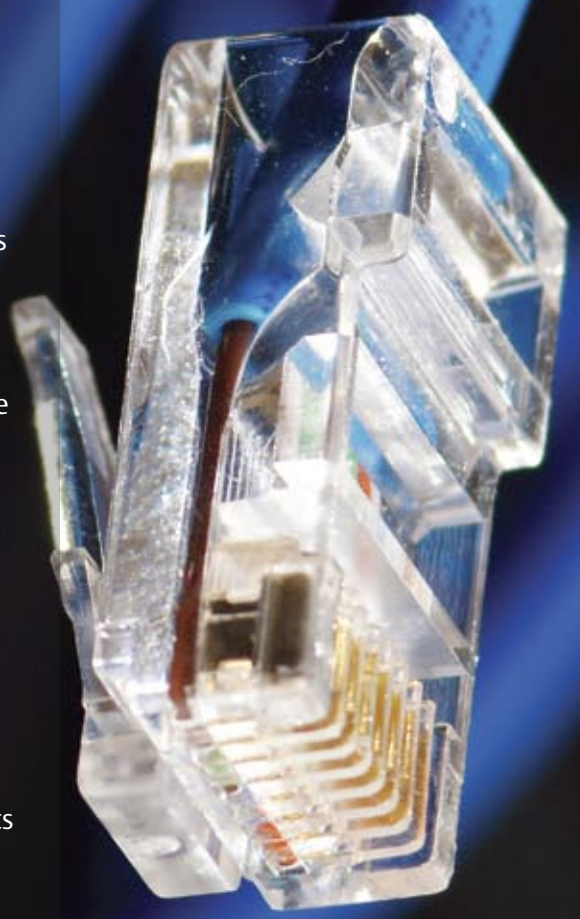
Think of the investment your company has made in sophisticated communications systems. Now think how costly it would be to your company if this mission-critical equipment went down.

The fact is — in a nanosecond — power surges, spikes and transients can compromise or totally disrupt voice and data communications, costing thousands in repairs and lost productivity.

The stakes are far too high to place your trust in anything but the best — Emerson Network Power Surge Protection products.

Our Transient Voltage Surge Suppression (TVSS) and data/signal line protection products provide the protection you need to help eliminate damage, disruption and costly downtime. Plus, all of the power quality solutions in this catalog are backed by a team of power quality specialists who understand communications systems as thoroughly as the products they sell.

Let Emerson Network Power Surge Protection provide unmatched protection and peace of mind.



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The IEEE Emerald Book **recommends that a listed surge protection device (SPD) be installed at the service entrance of all facilities to divert large transients associated with lightning or major power system events outside the facility.**

Transients generated within the premises can best be diverted by SPDs located close to the internal source of the transients or close to the electronic load equipment, using a listed and properly rated SPD applied to each individual or set of electronic conductors (e.g. power, voice and data).

Best results are obtained if both locations are protected.

Featuring NTI V3 SHIELD™ Technology

PowerSure® DMK Series

Surge Suppression for AC Applications

The PowerSure® DMK Series of Transient Voltage Surge Suppressors (TVSS) provides fast, reliable protection for AC circuits. A small footprint allows easy installation in almost any environment. Install at your critical distribution panel to protect all down-line equipment.

The PowerSure® DMK Series features independent primary Silicon Avalanche Diode (SAD) and secondary Metal Oxide Varistor (MOV) suppression technology to ensure continued protection. The latest technological advancement of the DMK Series is the addition of V3 SHIELD™ Technology, which provides the lowest-possible clamp voltage to peak pulse current handling far in excess of traditional fused designs. Combined with a solid grounding system, the DMK Series is the ultimate in protecting sensitive electronic equipment from damaging transient voltage surges.

Emerson Network Power designs superior Transient Voltage Surge Suppression (TVSS) devices for a variety of field applications. The PowerSure® DMK Series is available with various configurations and energy-handling ratings to ensure the proper level of protection for your application. As part of the total power protection solution, Emerson Network Power provides engineering assistance to configure the appropriate equipment for your individual needs.

Features

- Nondegrading Bipolar SAD technology provides reliable performance with the lowest-possible clamping voltage and fastest response time in comparison to other TVSS technologies
- V3 SHIELD™ Technology provides thermal protection against prolonged over-voltage conditions
- V3 SHIELD™ Technology allows actual peak pulse current to be handled by the suppression module, well in excess to traditional fused modules
- Status indication on each module to show normal compromised suppression status
- Field replaceable modules for easy repair and upgrade
- Independent primary SAD suppression and secondary MOV suppression technology ensures continued protection
- Remote failure indication for long distance monitoring
- Interior and exterior enclosures available
- 3 year warranty

General Technical Specifications

Part Number	PowerSure® DMK-B
Operating Voltage	120/240 VAC Split Phase
Clamping Voltage	211 VAC
Operating Current	NA, Parallel
Total Peak Surge Current	156kA
Operating Frequency	50/60 Hz
EMI Attenuation	NA
SPD Technology	SAD / MOV
Modes of Protection	L-L & L-N (Standard), N-G (Enhanced Mode option)
Status Indication	Power On & MOVs functional
Connection Type	Wire Leads
Operating Temperature	-40°C to +50°C
Dimensions (Inches)	14H x 12W x 6D
Weight	22 lbs
Certifications	UL 1449

Part Number	PowerSure® DMK-C
Operating Voltage	120/208 VAC 3 Phase Wye
Clamping Voltage	211 VAC
Operating Current	NA, Parallel
Total Peak Surge Current	156kA
Operating Frequency	50/60 Hz
EMI Attenuation	NA
SPD Technology	SAD / MOV
Modes of Protection	L-L & L-N (Standard), N-G (Enhanced Mode option)
Status Indication	Power On & MOVs functional
Connection Type	Wire Leads
Operating Temperature	-40°C to +50°C
Dimensions (Inches)	20H x 12W x 6D
Weight	30 lbs
Certifications	UL 1449

Notes: NEMA 1 (interior) or NEMA 4 (exterior) enclosures available. All units are UL 1449 Listed. Enhanced mode (N-G) protection option available. All units come standard with Remote Failure Indication. Counter option is available with a transient counter (interior enclosure only).

PowerSure® — IH Series

Modular Surge Protective Device (SPD) capable of handling the high-impulse, potentially damaging transients commonly found at the service entrance or distribution panels. Its robust design allows for placement and protection in the most severe exposure locations.

Features

- Surge current capacity — 100,000 to 400,000 Amps per phase
- Replaceable modules ensure protected mode flexibility
- All voltage and phase configurations
- Unique MOV/silver link fuse array enables the IH Series to deliver the industry's most robust design; Coordination between fuse gauge and MOV ensures repeatable strike performance
- Status indication includes: audible alarm, form C contact, and internal/external status indication
- Optional equipment includes rotary disconnect, surge counter, NEMA 3R, 4 or 4X enclosures
- 5 year warranty

Performance Technical Specifications

Clamping	
UL 1449 Classification*	
120/208	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
277/480	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
480	
Line to Line	1,500 Volts
Line to Ground	1,500 Volts

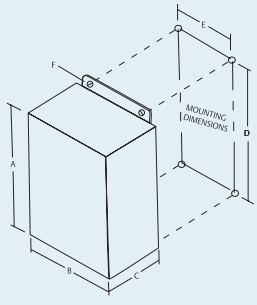
** UL classifications for other voltages available upon request.*

Peak Surge Current Capability (8 x 20 µs)	
Model: IHxxxx400	
Phase:	400,000 Amps
L-N:	200,000 Amps
L-L:	200,000 Amps
L-G:	200,000 Amps
N-G:	200,000 Amps
Model: IHxxxx200	
Phase:	200,000 Amps
L-N:	100,000 Amps
L-L:	100,000 Amps
L-G:	100,000 Amps
N-G:	100,000 Amps
Model: IHxxxx200-2	
Phase:	200,000 Amps
L-N:	200,000 Amps
L-L:	200,000 Amps
L-G:	N/A
N-G:	200,000 Amps
Model: IHxxxx100-2	
Phase:	100,000 Amps
L-N:	100,000 Amps
L-L:	100,000 Amps
L-G:	N/A
N-G:	100,000 Amp

General Technical Specifications

Operating Voltage Range	+/- 15%
Fault Current Rating (AIC)	200 kAIC
Operating Frequency Range	47–63 Hz
Capacity	Continuous
50 Ω EMI/RFI Attenuation	50 dB
Response Time	< 0.5 ns
Operating Temperature	-40°C to +50°C
Operating Humidity	0% to 95%
Certifications	UL 1449, 1283, CUL, CE
Warranty	5 Year

Dimensional Diagram



Model	A	B	C	D	E	F
IHxxxY400	16	14	8	16.75	12	.31
IHxxxD400	16	14	8	16.75	12	.31
IHxxxY200-2	16	14	8	16.75	12	.31
IHxxxD200-2	16	14	8	16.75	12	.31
IHxxxY200	16	14	8	16.75	12	.31
IHxxxD200	16	14	8	16.75	12	.31
IHxxxY100-2	16	14	8	16.75	12	.31
IHxxxD100-2	16	14	8	16.75	12	.31

PowerSure® — LPM/IM Series

A compact Surge Protective Device (SPD) designed to protect electronic equipment and microprocessor-based systems from transients on distribution and sub-distribution panels, or any medium exposure locations.

Features

- Surge current capacity — 100,000 to 160,000 Amps per phase
- All mode and 2 mode protection option
- Small footprints
- All voltage and phase configurations
- Form C contact for remote indication, LED status indication, and audible alarm standard
- Nema 12 metal enclosure
- Sand encapsulation
- Thermal protection
- Silver link fusing
- 5 year warranty

Performance Technical Specifications

Clamping	
UL 1449 Classification*	
120/208	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
277/480	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
480	
Line to Line	1,500 Volts
Line to Ground	1,500 Volts

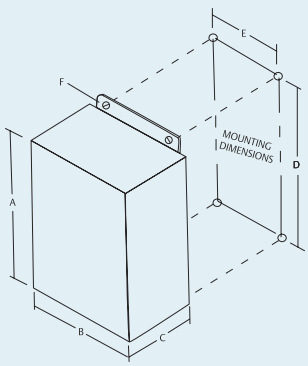
** UL classifications for other voltages available upon request.*

Peak Surge Current Capability (8 x 20 µs)	
Model: IMxxxx160	
Phase:	160,000 Amps
L-N:	80,000 Amps
L-L:	80,000 Amps
L-G:	80,000 Amps
N-G:	80,000 Amps
Model: IMxxxx100-2	
Phase:	100,000 Amps
L-N:	100,000 Amps
L-L:	100,000 Amps
L-G:	N/A
N-G:	100,000 Amps

General Technical Specifications

Operating Voltage Range	+/- 15%
Fault Current Rating (AIC)	65 kAIC
Operating Frequency Range	47–63 Hz
Capacity	Continuous
50 V EMI/RFI Attenuation	40 dB
Dry Contact Rating	125 VAC, 8A, 1.0 pf
Response Time	< 0.5 ns
Operating Temperature	-45°C to +50°C
Operating Humidity	0% to 95%
Certifications	UL 1449, CUL
Warranty	5 Year

Dimensional Diagram



Model	A	B	C	D	E	F
IMxxxY160	8	6	4	8.75	4	.31
IMxxxD160	8	6	4	8.75	4	.31
IMxxxY100-2	6	4	3	6.75	2	.31
IMxxxD100-2	6	4	3	6.75	2	.31

PowerSure® — LPL/IL Series

Electronic grade Surge Protective Device (SPD) designed to protect electronic equipment and microprocessor-based systems from transients on sub-distribution panels, branch panels, or equipment located in low exposure locations.

Features

- Surge current capacity — 25,000 to 100,000 Amps per phase
- All mode and 2 mode protection option
- Small footprint
- All voltage and phase configurations
- LED status indication and form C contact for remote indication
- Sand encapsulation
- Thermal protection
- Silver link fusing
- 5 year warranty

Performance Technical Specifications

Clamping	
UL 1449 Classification*	
120/208	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
120/240	
Line to Neutral	400 Volts
Line to Line	800 Volts
Line to Ground	400 Volts
Neutral to Ground	400 Volts
277/480	
Line to Neutral	800 Volts
Line to Line	1,500 Volts
Line to Ground	800 Volts
Neutral to Ground	800 Volts
480	
Line to Line	1,500 Volts
Line to Ground	1,500 Volts

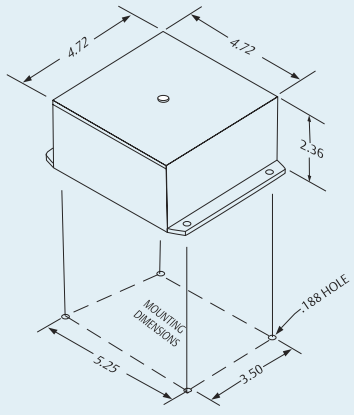
** UL classifications for other voltages available upon request.*

Peak Surge Current Capability (8 x 20 µs)	
Model: ILxxxx100	
Phase:	100,000 Amps
L-N:	50,000 Amps
L-L:	50,000 Amps
L-G:	50,000 Amps
N-G:	50,000 Amps
Model: ILxxxx50	
Phase:	50,000 Amps
L-N:	25,000 Amps
L-L:	25,000 Amps
L-G:	25,000 Amps
N-G:	25,000 Amps
Model: ILxxxx25-2	
Phase:	25,000 Amps
L-N:	25,000 Amps
L-L:	25,000 Amps
L-G:	N/A
N-G:	25,000 Amps

General Technical Specifications

Operating Voltage Range	+/- 15%
Fault Current Rating (AIC)	14 kAIC
Operating Frequency Range	47–63 Hz
Capacity	Continuous
50 Ω EMI/RFI Attenuation	40 dB
Dry Contact Rating	125 VAC, 8 A, 1.0 pf
Response Time	< 0.5 ns
Operating Temperature	-40°C to +50°C
Operating Humidity	0% to 95%
Certifications	UL 1449, CUL, CE
Warranty	5 Year

Dimensional Diagram



PowerSure® — Ordering Information

PowerSure® High Exposure Model Number : **IH** 1 2 3 6

PowerSure® Medium Exposure Model Number : **IM** 1 2 4

PowerSure® Low Exposure Model Number : **IL** 1 2 5

How To Specify the Appropriate Model

All model numbers begin with a prefix (IH, IM, IL). Moving from left to right, choose correct configuration from each column for your application. Your completed model number should look similar to the example below:

Example Part Number: IH 120 L 200 4X

1 Voltage Code

Nominal Voltage Level			Model Identification
L–N	L–L	L–G	
120	N/A	120	120
120	208	120	
120	240	120	
N/A	240	240	240
277	480	277	277
N/A	480	480	480

Other voltages available, please consult factory.

2 Phase Configuration

Phase Configuration	Model Identification
Single Phase 2 Wires + Gnd (Line & Neutral)	N
Single Phase 2 Wires + Gnd (Line & Line)	L
Single (Split) Phase 3 Wires + Gnd	S
Three Phase Wye 4 Wires + Gnd	Y
Three Phase Delta 3 Wires + Gnd	D
Three Phase Delta Hi-Leg 4 Wires + Gnd	H
Three Phase Wye w/no Neutral 3 Wires + Gnd	X

3 Surge Capacity (High Exposure)

Surge Capacity Per Phase (L-N + L-G)			Model Identification
400 kA			
L–N	L–G	N–G	400
200	200	200	
200 kA			
L–N	L–G	N–G	200-2
200	N/A	200	
200 kA			
L–N	L–G	N–G	200
100	100	100	
100 kA			
L–N	L–G	N–G	100-2
100	N/A	100	

4 Surge Capacity (Medium Exposure)

Surge Capacity Per Phase (L-N + L-G)			Model Identification
160 kA			
L–N	L–G	N–G	160
80	80	80	
100 kA			
L–N	L–G	N–G	100-2
100	N/A	100	

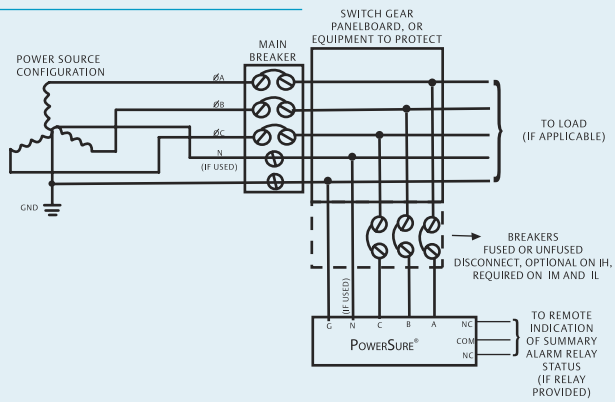
5 Surge Capacity (Low Exposure)

Surge Capacity Per Phase (L-N + L-G)			Model Identification
100 kA			
L–N	L–G	N–G	100
50	50	50	
50 kA			
L–N	L–G	N–G	50
25	25	25	
25 kA			
L–N	L–G	N–G	25-2
25	N/A	25	

6 Options

Option	Model Identification
Rotary Disconnect	R
Surge Counter	C
NEMA 3R Enclosure	3R
NEMA 4 Enclosure	4
NEMA 4X Enclosure	4X

Recommended Connections



REPOSITIONABLE OUTLETS

Islatrol® — SP-6TVN

Industrial Strength Surge Suppression (Series)

The Islatrol® SP-6TVN is an industrial-strength surge suppression/filtering device that plugs into a standard duplex receptacle. It features uniquely designed repositionable outlets for easy installation behind desks and other furniture. It protects your sensitive home or office equipment, including TVs, home theaters, satellite dishes, computers, printers, copiers, and fax machines, from damaging power disturbances traveling through your wiring into your electrical outlets.

Features

- Plugs into standard 120 V, 15 Amp electrical outlet
- Total peak surge current capacity of 39,000 Amps
- Cables for telephone, video, and data connectors
- Repositionable outlets rotate to accommodate available space
- Perfect for tight spaces, behind furniture and appliances
- Intelligent monitoring against improper wiring/grounding
- 60 dB maximum high frequency
- Operational indicator lamp
- 5 year limited warranty

General Technical S

AC Power Protection

Nominal Operating Voltage	120 VAC, Single Phase
Operating Voltage Range	120 VAC +/- 10%
Operating Frequency Range	47 – 63 Hz
Rated Output (Amps)	15 Amperes
ANSI/IEEE C62.41 Category	Category A & B
Connection Type	(6) 5-15R Receptacles and 5-15P Plug
Phase Configuration	2 Wire + Gnd
Size	7.5 x 4.75 x 1.75 (Inches)
Enclosure	High Impact Plastic
Weight	2.0 lbs (0.9 kgs)
Modes Of Protection	L – N, L – G, N – G
Indication of Suppression Status	Status Indicator
Response Time	< .5 ns Normal Mode
Certifications	UL 1449 Listed
Warranty	5 Year

Maximum Continuous Operating Voltage (MCOV)

Line to Neutral	130 VAC

Peak Surge Current (8 x 20 µs)

Line to Neutral	13,000 Amps
Line to Ground	13,000 Amps
Neutral to Ground	13,000 Amps
Total	39,000 Amps

ANSI/IEEE C62.41 Cat A Ringwave (6 kV, 200 A, 100 kHz)

Normal Mode	265 V
Common Mode	290 V

ANSI/IEEE C62.41 Cat B Ringwave (6 kV, 500 A, 100 kHz)

Normal Mode	275 V
Common Mode	290 V

Frequency Response

Normal Mode	60 dB Maximum, forward/reverse, 100 kHz to 50 MHz
Common Mode	40 dB Maximum, forward/reverse, 5 MHz to 50 MHz

Low Voltage Protection

	Video 1 & 2	Phone	Network
Connection Type	Type "F"	Type RJ-11	Type RJ-45
Cables Provided	6' (2x) Type "F" Ends	6' RJ-11 Male Ends	6' RJ-45 Male Ends
Peak Surge Current	5 kA (8 x 20 µs)	2 kA (10 x 1000 µs)	3 kA (8 x 20 µs)
Capacitance	<12 pf	<50 pf	<70 pf
Protection Level	L-G	T-R, T-G, R-G	L-G (8 Lines)
Clamping Voltage (DC)	145 V	270-350 V	30 V
Attenuation	1 dB @ 2 Ghz	N/A	N/A

PowerSure® EMC Series

120/240 VAC Heavy Duty (Parallel)

The PowerSure® EMC Series surge suppressor is designed to protect AC distribution panel circuits or 120 V power supplies feeding sensitive electronic equipment. Electrically, the unit incorporates MOV and thermal fusing technology. The PowerSure® EMC Series is designed to be installed in parallel on standard single or split phase 120/240 VAC circuits.

Features

- Fast response time
- 40,000 Amps per phase capacity
- Failsafe and fused
- Operational status indicators
- UL 1449 listed and OWHX listed
- 5 year warranty

General Technical Specifications

Part Number	PowerSure® EMC-240B
Operating Voltage	120/240 VAC
Clamping Voltage	395 VAC
Operating Current	NA, Parallel
Total Peak Surge Current	80 kA (8 x 20 µs)
Operating Frequency	47–63 Hz

EMI Attenuation (100 kHz to 100 MHz)	> 40 dB
SPD Technology	Metal Oxide Varistors (MOVs)
Modes of Protection	Line-to-Line, Line-to-Neutral
Status Indication	Power On & MOVs functional
Connection Type	Wire Leads

Fault Current Rating	42 kAIC
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	4.6H x 2.2W x 2.8L
Weight	13.5 oz
Certifications	UL 1449, Suppressor/ OWHX Arrester

PowerSure® TCS-HW Series

Point-of-Application Protection

Utilizing bipolar Silicon Avalanche Diode (SAD) technology, the PowerSure® TCS-HW Series features a two-stage design that provides superior protection for sensitive equipment and for ANSI/IEEE C62.41 Location Category A applications. The PowerSure® TCS-HW Series can be incorporated into larger power protection or used as point-of-application protection. Hardwired into a single 15 or 20 amp AC circuit, the PowerSure® TCS-HW Series places protection at, or near, the critical load. The field-tested design ensures continuous protection in the most demanding environments, with configurations available for 120 and 240 VAC, single-phase applications.

Features

- Provides superior, nondegrading protection using bipolar SAD technology
- Provides independent secondary stage for maximum continued protection
- Includes remote status indication via RJ-11 jack
- Protects individual circuits
- Withstands demanding environments with its rugged metal enclosure
- Installs easily
- CE listed
- 1 year warranty

General Technical Specifications

Part Number	PowerSure® TCS-HWD
Operating Voltage	240 VAC Single Phase
Clamping Voltage	424 VAC
Operating Current	20A
Total Peak Surge Current	48kA
Operating Frequency	50/60 Hz
EMI Attenuation	-13dB max
SPD Technology	SAD / MOV / Filter
Modes of Protection	L-N, L-G, N-G
Status Indication	Power On & MOVs functional, Remote Status
Connection Type	Wire Leads
Operating Temperature	-40°C to + 50°C
Dimensions (Inches)	4H x 4W x 2.5D
Weight	1.25 lb
Certifications	CUL, CE

Part Number	PowerSure® TCS-HWR
Operating Voltage	120 VAC Single Phase
Clamping Voltage	216 VAC
Operating Current	20A
Total Peak Surge Current	48kA
Operating Frequency	50/60 Hz
EMI Attenuation	-13dB max
SPD Technology	SAD / MOV / Filter
Modes of Protection	L-N, L-G, N-G
Status Indication	Power On & MOVs functional, Remote Status
Connection Type	Wire Leads
Operating Temperature	-40°C to + 50°C
Dimensions (Inches)	4H x 4W x 2.5D
Weight	1.25 lb
Certifications	CUL, CE

Model shown: RM-115-10 RM

Islatrol® — RM Series

120 VAC Rackmount

This line of AC surge protectors is ideal for protecting the power feeding valuable rack equipment. All models provide ten protected outlets on the back and two protected convenience outlets on the front. This series provides 40,000 Amps of surge protection and up to 60 dB of high-frequency noise filtering. Status LEDs indicate the correct power is coming to the unit, whether the unit is properly grounded and whether the surge components are still in tact. Units are available with an optional digital meter, mounted on the front of the unit, that will monitor the voltage, current and power of the protected equipment.

Features

- 40 kA surge protection
- 60 dB max noise filtering
- 15 A & 20 A models available
- Power, ground and surge status indicators
- Optional digital meter
- Optional twist lock plug
- 1 year warranty

General Technical Specifications

Part Number	Voltage	Amperage	Plug (NEMA)	Receptacles (NEMA)	Digital Meter	Locking Plug
RM-115-10RM	120 V	15 A	5-15P	5-15R	Yes	No
RM-120-10RM	120 V	20 A	5-20P	5-20R	Yes	No
RM-120-10RML	120 V	20 A	L5-20P	5-20R	Yes	Yes

Rackmount AC Power Protection

Rated Voltage	120 V
Rated Current	15 A & 20 A
Peak Surge Current	20 kA/mode, 40 kA/phase
Response Time	<5 ns
EMI/RFI Filtering	60 dB Max
LED Indicators	Green-Power On Green-Ground OK Green-Surge Circuit OK
Digital Meter (Optional)	Voltage Amps, Watts, VA, Hz, PF, Kwh, and Clock
Input Power	
15 A Models	SJT 14/3C Power Cord (15 ft) with NEMA 5-15P Plug
20A Models	SJT 12/3C Power Cord (15 ft) with NEMA 5-20P Plug NEMA L5-20P Plug- Optional
Output Receptacles	
15 A Models	Front- (2) NEMA 5-15R Back- (10) NEMA 5-15R
20 A Models	Front- (2) NEMA 5-20R Back- (10) NEMA 5-20R
Thermal Protection	Thermal Protected MOVs
Over-current Protection	Circuit
Dimensions	1.75"H x 19"W x 2.0"D (1U)
Warranty	1 Year

Edco RM-CAT6 Series

CAT6 Channel Rackmount

The Edco RM-CAT6 is a 16-channel high-speed data line protector that utilizes a three-stage hybrid design technology. This unit addresses high-energy voltage transients that can damage expensive computer equipment. Ideal for network switches and hubs, the Edco RM-CAT6 is easily mounted in close proximity to the protected equipment.

Features

- Exceeds category 6 transmission values
- Compact 1U rack size
- Low insertion loss
- Three stage hybrid
- 1 year warranty

General Technical Specifications

Part Number	RM-CAT6-16R
Operating Voltage	5 V
Clamping Voltage	8.2 V
Frequency Range	0–250 MHz
Operating Current	0.15 A
SPD Technology	GDT, SAD, W/Series PTC
Modes of Protection	Signal High-Low, Signal High-Ground, Signal Low-Ground

Peak Surge Current	10 kA (8 x 20 µs)
Insertion Loss	<0.1 dB
VSWR	<1.2
Operating Humidity	0-95% Non-Condensing
Operating Temperature	-40°C to +85°C
Input Connection Type	RJ-45
Output Connection Type	RJ-45
Mounting	Rackmount
Enclosure Type	Painted Steel

Dimensions	1.75Hx19Wx6.3D
Weight	5.5 lbs
Warranty	1 Year

Edco RM-CX06

CCTV Channel Rackmount

The Edco RM-CX06 Surge Protective Device (SPD) is a 16 channel coax SPD implementing three-stage hybrid technology. The SPD addresses over-voltage transients with a primary Gas Discharge Tube (GDT), and secondary Silicon Avalanche Diode (SAD) components. Over-current protection, e.g., sneak and fault currents, are mitigated with solid-state resettable fuses — PTCs. The Edco RM-CX06 SPD is designed in accordance with NFPA 780 (2004 edition) requirements, with up to 20 kA of surge current capability.

Features

- Sneak/fault current protection
- Low insertion loss
- Shielded case
- 16 channel
- 1 year warranty

General Technical Specifications

Part Number	RM-CX06-16R
Operating Voltage	5 VDC
Clamping Voltage	6 VDC
Operating Current	0.15 A
Peak Surge Current	20 kA (8 x 20 µs)

Frequency Range	0–100 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	GDT, SAD, w/Series PTC
Connection Type	BNC, 50/75 Ohm

Operating Temperature	-40°C to +85°C
Dimensions (Inches)	1.75H x 19W x 2.0D (1U)
Weight	3.2 lbs
Certifications	UL 497B

Edco PLP-S Series

Isolated Power Loop Circuit Protection

Using the highest quality Silicon Avalanche Diode (SAD) technology, the Edco PLP-S Series is designed to protect your equipment from harmful power surges and transients. Nondegrading SADs will last the lifetime of your equipment, ensuring system uptime.

The Edco PLP-S Series of products provides isolated power loop circuit protection in applications where higher current is required, such as fire alarm and security systems.

Whether incorporated into a larger power protection strategy or used as primary protection, the Edco PLP-S Series family provides unparalleled protection. The Edco PLP-S Series keeps your critical equipment online in the most demanding environmental conditions.

Features

- Silicon Avalanche Diode (SAD) design for nondegrading performance and protection
- Provides protection for both single and multiple circuits
- Designed for easy hardwire installation
- Rugged enclosure for harsh environments
- Provides unparalleled clamping performance for maximum equipment protection
- UL 497B listed
- 1 year warranty

General Technical Specifications

Operating Voltage	5, 14, 30, 60, 140, 200 VDC
Clamping Voltage	6, 16, 33, 67, 150, 211 VDC
Operating Current	7A
Peak Surge Current	400 A
Frequency Range	0 to 30MHz
Insertion Loss	< 0.1 dB at 30 MHz
SPD Technology	SAD
Connection Type	Terminal Screw
Operating Temperature	-40°C to +60°C
Dimensions (Inches)	2H x 3W x 1.5D
Weight	2.5 oz
Certifications	UL 497B

Ordering Information

PLP-S — VOLTAGE CLAMP

05	6 Volts
41	16 Volts
42	33 Volts
43	67 Volts
44	150 Volts
45	211 Volts

Edco FAS-1 and FAS-2 Series

One and Two Pair Signal Line Protector (Commercial)

The Edco FAS-1 and Edco FAS-2 Series are multi-stage **single pair or two pair** surge suppressors designed for high exposure applications. These products were specifically designed to meet multiple low voltage protection applications in the fire and security industries.

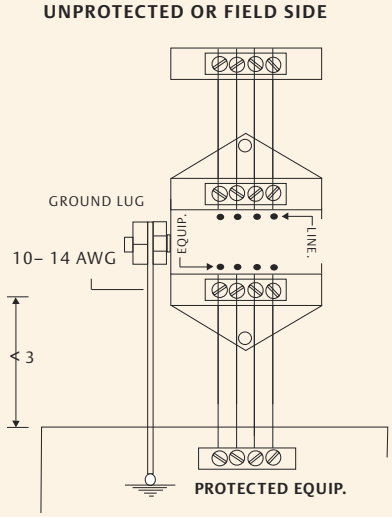
Features

- Lightning protection for low voltage
- Data/signal lines
- Multi-stage protection
- Common mode and differential protection mode
- Automatic recovery
- 5 year warranty

General Technical Specifications

Operating Voltage	15, 24, 36, 52 VDC
Clamping Voltage	18, 33, 43, 60 VDC
Operating Current	2.5 A
Peak Surge Current	10 kA (8 x 20 µs)
Frequency Range	0–10 MHz
Insertion Loss	< 0.1 dB at 10 MHz
SPD Technology	GDT, SAD, w/Series Inductor
Connection Type	Terminal block w/compression lugs Terminals accept up to 12 AWG
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	FAS-1 = 1.5H x 1.5W x 2.8L FAS-2 = 2H x 2W x 2.8L
Weight	FAS-1 = 3.5 oz FAS-2 = 7 oz
Certifications	UL 497B

Installation



DO NOT daisy chain grounds. NOT intended for shield termination. Install ground in accordance with all applicable codes.

Ordering Information

12VDC use:	FAS-1-018 HC (single pair) FAS-2-018 HC (two pair)
24VDC use:	FAS-1-033 HC (single pair) FAS-2-033 HC (two pair)
24VAC use:	FAS-1-043 HC (single pair) FAS-2-043 HC (two pair)
48V Systems use:	*FAS-1-060 HC (single pair) *FAS-2-060 HC (two pair)

**Not UL Listed*

Caution: *The hybrid design of this product includes series resistance. Do not place this product in service on any signal line capable of continuously supplying more than 2.5 amperes.*

EDCO PCB1B BASE SOLD SEPARATELY

Edco PHC Series

Two-Pair Signaling Circuit Protector (Modular)

The Edco PHC Series is designed to protect two pairs of wires specifically for alarm and security systems where operating currents can be as high as 5 Amps. Electrically, the Edco PHC Series is a rugged series hybrid implementing a staged complement of MOVs, copper wound inductors and Silicon Avalanche Diodes. This design reduces series resistance to 0.2 Ohms per pair. These products are intended to mate with an Edco PCB1B gold-plated female terminal connector.

The Edco PHC modules plug into a base assembly (Edco PCB1B). The base assembly can be mounted to any flat surface and should be located as close as practical to the protected equipment. Terminal 1 and/or terminal 10 should be connected to Building-Approved Ground with 12 or 10 gauge solid wire.

Features

- Three-stage protection
- Differential protection
- Common mode protection
- Plug-in module
- Automatic recovery
- Fast response time
- Continuous current up to 5 Amps
- UL 497B listed
- Requires Edco PCB1B base
- PC642PTU (Pass Thru Unit) available for troubleshooting
- 5 year warranty

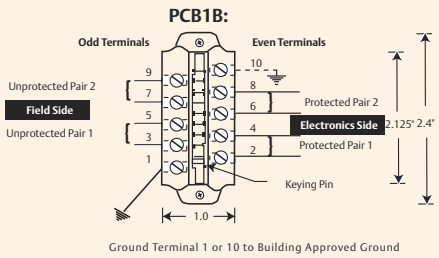
General Technical Specifications

Operating Voltage	12, 18, 24, 36, 52, 60, 120 VDC
Clamping Voltage	15, 20, 30, 43, 60, 70, 150 VDC
Operating Current	5 A
Peak Surge Current	10 kA (8 x 20 µs)
Frequency Range	0–10 MHz
Insertion Loss	< 0.1 dB at 10 MHz
SPD Technology	MOV, SAD, w/Series Inductor
Connection Type	Terminal block w/compression lugs Terminals accept up to 10 AWG
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	3.7H x 1.75W x 2.375L (PHC + PCB1B Base)
Weight	8 oz
Certifications	UL 497B

Applications Part Number

24V Horn, Strobe, Bell:	PHC-043 & PCB1B
70V Speaker Lines:	PHC-SP70 & PCB1B

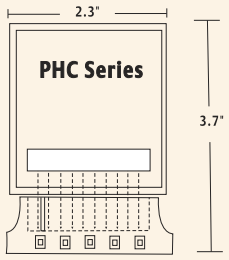
Terminal Assignments



Ground Terminal 1 or 10 to Building Approved Ground

DO NOT daisy chain grounds. NOT intended for shield termination. Install ground in accordance with all applicable codes.

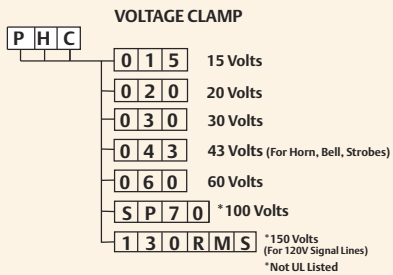
Dimensions



PCB1B

Ordering Information

How to Specify the Appropriate Model



Edco RJA-RJD Series

RJ-45 Telephone/Data

The Edco RJA and Edco RJD Series are four pair telephone/data line protectors that implement advanced two stage hybrid design. These units address over voltage transients with silicon breakover devices, while sneak and fault currents are mitigated with PTC technology, which consists of solid state resettable fuses.

The Edco RJA and Edco RJD Series incorporate Edco RJ-45 female jacks in and out. The Edco RJA voltage clamp is set for C.O. Trunks and Analog Telephone Extensions (with ring in voltage), and the Edco RJD voltage clamp is set for Digital Extensions (no ring in voltage).

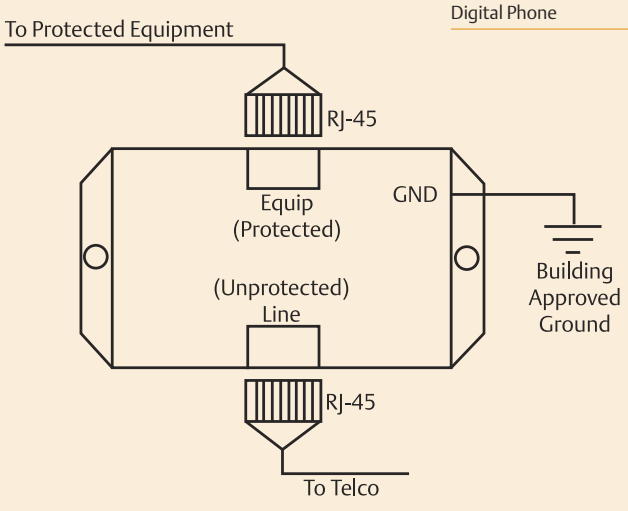
Features

- <1 nanosecond response time
- Solid-state resettable fuses — PTCs
- Silicon breakover technology
- Low capacitance
- Line-to-line protection
- Accommodates RJ-11 jack
- Tip & ring to ground protection
- CAN/CSA C22.2, No. 226-92 compliant
- UL 497A listed
- 4 pair protection
- 5 year warranty

General Technical Specifications

Operating Voltage	48, 220 VDC
Clamping Voltage	55, 280 VDC
Operating Current	0.15 A
Peak Surge Current	200 A (10 x 1000 µs)
Frequency Range	0–50 MHz
Insertion Loss	< 0.1 dB at 50 MHz
SPD Technology	Silicon Breakover Devices w/Series PTC
Connection Type	RJ-45 Jacks
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	1.0H x 2.5W x 4.25L
Weight	3 oz
Certifications	UL 497A, CUL,

Installation



The Edco RJA and Edco RJD Series are intended for indoor use only and shall be employed on the equipment side of a listed primary telephone protector.

Ordering Information

Analog Phone	RJA-45
Digital Phone	RJD-45

Edco H Series

Telecom/Punch Block Protection
Advanced Ultra High Speed Technology

The Edco H-Series modules are ultra high speed fused solid state secondary protectors for KEY/PABX systems. The units are available in three different clamping voltages. The Edco H-Series is constructed with solid state silicon foldback technology, polyswitch resettable fuses — PTCs — and failure fuses. These protection modules are intended to be used in conjunction with proper primary protectors (UL 497). The protective elements switch from the normal high-impedance state to a low-impedance state upon a detection of a surge, then switch back to high impedance after the surge has passed. The Edco H-Series single pair modules fit onto a standard Edco MI-50 split block and replace bridging clips. In addition, these modules require the Edco MGB Ground Rail for each Edco MI-50 block used.

TTA-2 TEST POINT ADAPTOR
(SOLD SEPARATELY)

TTA-2 Test Point Adaptor

Plugs into test points on HCO, HDE, and HAE, as well as other Edco 66 Block Protectors. Adaptor is equipped with test clips for connection to telephone test (butt) set or meter. Order part # TTA-2

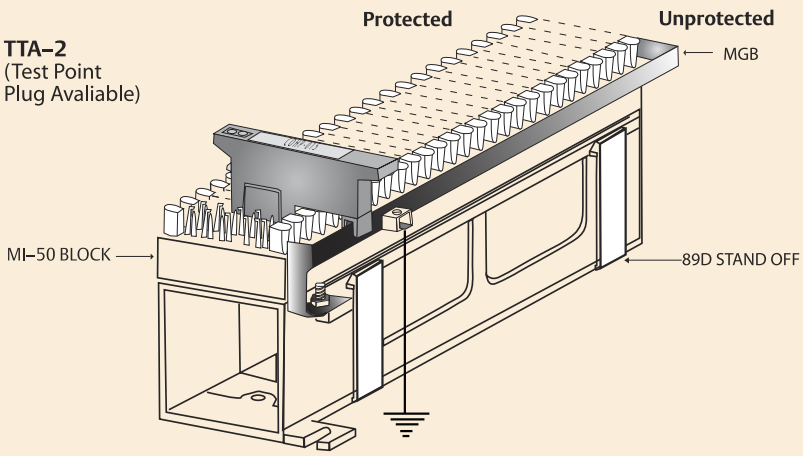
General Technical Specifications

Operating Voltage	50, 180, 230 VDC
Clamping Voltage	65, 200, 270 VDC
Operating Current	0.15 A
Peak Surge Current	160 A (10 x 1000 µs T & R to Ground)
Frequency Range	0– to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	Silicon Breakover Device w/ Series PTC
Connection Type	Clip
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	1.25H x 0.4W x 2.8L
Weight	1 oz
Certifications	UL 497A, CUL

Ordering Information

Central Office/Trunks	HCO
Analog Extensions	HAE
Digital Extensions	HDE

Installation



UNPROTECTED SIDE – TERMINATE FIELD SIDE WIRING COMING INTO BUILDING ON THE "UNPROTECTED SIDE"

DO NOT daisy chain grounds. NOT intended for shield termination.
Install ground in accordance with all applicable codes.

Edco COHP Series

Data/Signal Line/Punch Block Protection
High Exposure Applications

The Edco COHP modules are three-stage hybrid protectors for low voltage data and telecommunications applications. The modules address over-voltage transients with gas tubes and silicon avalanche components. In addition, sneak and fault currents are mitigated with resettable fuses (PTCs). Intended to be used on pairs without the presence of ringing voltage. The Edco COHP modules are designed for data and control applications as an isolated loop circuit protector.

Features

- Replaces bridging clips on MI -50 Block
- <1 nanosecond response time
- Line-to-line protection
- Line-to-ground protection
- Utilizes MGB grounding rail
- Rugged three electrode gas tube first stage
- Silicon avalanche hybrid technology
- Polyswitch resettable fusing — PTCs
- 5 year warranty

General Technical Specifications

Operating Voltage	6, 12, 24, 43, 52 VDC
Clamping Voltage	8, 15, 30, 50, 60 VDC
Operating Current	0.15 A
Peak Surge Current	10 kA (8 x 20 µs)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz

SPD Technology	GDT, SAD, w/ Series PTC
Connection Type	Clip
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	1.25H x 0.4W x 2.8L
Weight	1 oz
Certifications	UL 497B

Ordering Information

COHP-008	8 Volts
COHP-015	15 Volts
COHP-030	30 Volts
COHP-050	50 Volts
COHP-060	60 Volts

Edco MEGA-TEK 25 Series

Telephone Circuit Protection AMP-Type 25-Pair

The Edco MEGA-TEK 25 Series surge suppressor installs directly inline with existing AMP-TYPE 25 pair connectors. The close proximity to the KSU/PBX preserves the Edco MEGA-TEK's response time, clamping level and ground reference by reducing lead lengths.

The Edco MEGA-TEK's unique design maximizes surge suppression performance while reducing hardware and labor costs to install. The Edco MEGA-TEK is a UL 497A telephone secondary protector. The product is available in 3 application specific models.

Features

- AMP-TYPE connectors
- Automatic recovery — resettable fusing
- 25 pair protection
- High energy silicon technology
- UL 497A listed
- <1 nanosecond response time

General Technical Specifications

Part Number	MEG-25-CO
Break Down Voltage	270
Application	Central Office Lines
Max. Continuous Current	145ma
Part Number	MEG-25-AE
Break Down Voltage	200
Application	Analog Extension Lines
Max. Continuous Current	145ma
Part Number	MEG-25-DE
Break Down Voltage	65
Application	Digital Extension Lines
Max. Continuous Current	160ma

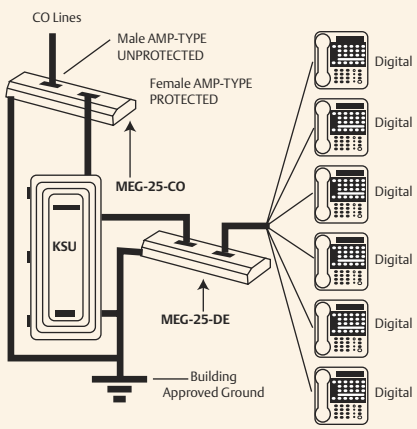
Installation

The hybrid design of this product includes series resistance. Do not place this product in service on any signal lines capable of more than 150 milliamperes continuously.

Installation Procedures

1. Never install telephone wiring during a lightning storm.
2. Disconnect telephone line at the network interface before installing the secondary protection.
3. The MEGA-TEK Series is intended for indoor use only. Plug the female AMP-TYPE connector from the unprotected Telco cable into the male AMP-TYPE connector on the MEGA-TEK Series. This is the LINE side.
4. Plug the male AMP-TYPE connector from the local equipment cable to be protected into the female AMP-TYPE connector on the MEGA-TEK Series. This is the EQUIP side.
5. Bond the green #12 AWG stranded ground wire from the MEGA-TEK Series to AC Power Ground or Building Approved Ground. For recommended grounding techniques, refer to Edco Technical Bulletin #1090.

KSU Tip/Ring Protection



US PATENT NO. 4,703,983

Edco MGB Ground Rail

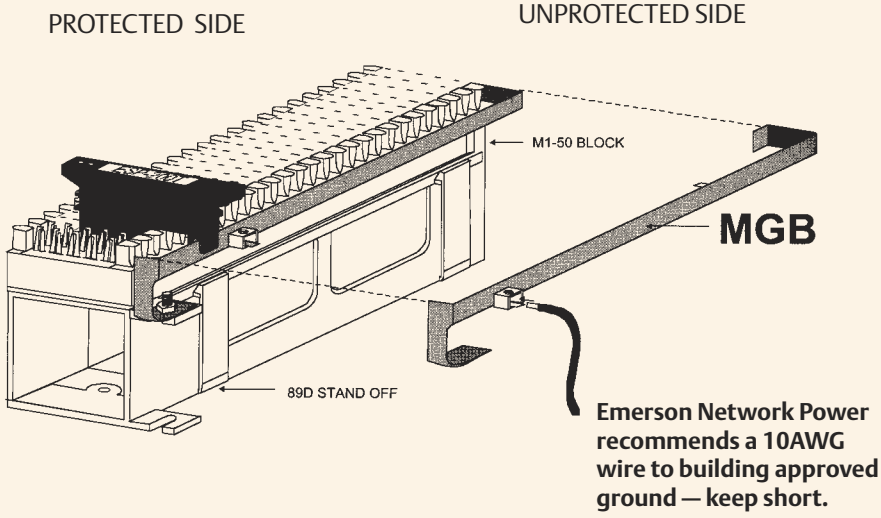
Fits Standard 66M1-50 Punch Down Blocks Split Block Variations

Edco MGB Ground Rail — Designed to fit standard 66M1-50 Punch Down Blocks.

Allows Edco's H-Series, COHP, PB Series and other similar Surge Suppressors to access ground when snapped onto the 66M1-50 Punch Down Block.

The Standard 66MI-50 block is capable of accommodating up to 25 Edco surge suppressors.

Application Diagram



Emerson Network Power recommends a 10AWG wire to building approved ground — keep short.

EDCO PCB1B BASE SOLD SEPARATELY

Edco PC642 Series

Zone/Loop/Data

The Edco PC642 Series surge suppressor is a two-pair (four-wire) module implementing three-stage hybrid technology. This module addresses over-voltage transients with gas tubes and silicon avalanche components. In addition, sneak and fault currents are mitigated with resettable fuses (PTCs). The PTCs increase resistance several orders of magnitude when over-currents exceed safe levels. A normal state resumes when over-currents are removed. The ability to self-restore in this manner significantly increases suppressor performance and survivability.

The Edco PC642 card edge module is gold-plated, double-sided, and is designed to mate with the Edco PCB1B gold-plated female terminal connector. When snapped together, the data circuits "pass thru" the protector in a serial fashion from the four "Field Side" terminals to the four "Electronics Side" terminals. Terminals 1 or 10 of the Edco PCB1B must be attached to Building-Approved Ground per Edco Technical Bulletin # 2015.

Features

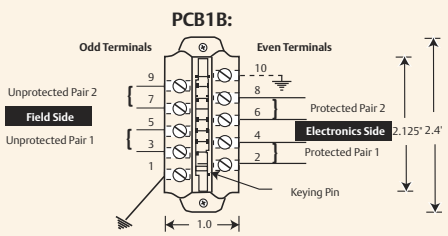
- Three-stage hybrid protection
- Sneak/fault current protection
- Resettable fusing — PTCs
- Low capacitance option
- Plug-in module
- Fast response time
- Requires Edco PCB1B base
- PC642PTU (Pass Thru Unit) available for troubleshooting
- 5 year warranty

General Technical Specifications

Operating Voltage	5, 12, 18, 24, 30, 36, 43, 52, 180 VDC
Clamping Voltage	8, 15, 20, 30, 36, 43, 50, 60, 200 VDC
Operating Current	0.15 A
Peak Surge Current	10 kA (8 x 20 µs)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	GDT, SAD, w/Series PTC
Connection Type	Terminal block w/compression lugs Terminals accept up to 10 AWG
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2H x 1W x 2.5L (PC642 + PCB1B Base)
Weight	1 oz
Certifications	UL 497B

Caution: *The hybrid design of this product includes series resistance. Do not place this product in service on any signal line capable of supplying more than 150 milliamperes continuously.*

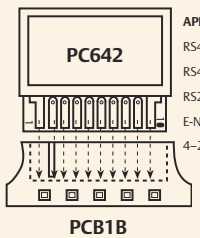
Terminal Assignments



Ground Terminal 1 or 10 to Building Approved Ground

DO NOT daisy chain grounds. NOT intended for shield termination. Install ground in accordance with all applicable codes.

Ordering Information



PCB1B

APPLICATION:

RS485, RS422:	PC642C-008LC & PCB1B
RS423, Token Ring:	PC642C-008LC & PCB1B
RS232:	PC642C-020 & PCB1B
E-NET, 10 BASE T:	PC642C-030LC & PCB1B
4–20ma:	PC642C-036 & PCB1B

How to Specify the Appropriate Model

PC642C - ☐☐☐

VOLTAGE CLAMP

8 Volts	008
15 Volts	015
20 Volts	020
30 Volts	030
36 Volts	036
43 Volts	043
50 Volts	050
60 Volts	060
*200 Volts	200

*Not UL Listed

(no suffix)	stage 2 clamp each line-to-ground
D	stage 2 clamp line-to-line only
X	stage 2 clamp line-to-line and each line to ground
LC	low capacitance option stage 2 clamp line-to-line and each line to ground

Edco PC642PTU

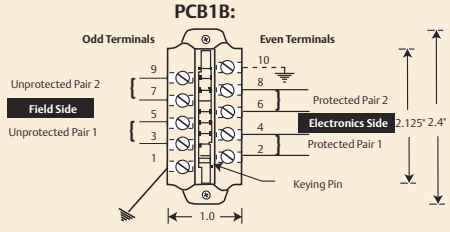
Pass Thru Unit

The Edco PC642PTU is an invaluable tool for troubleshooting Edco card-edge-style protectors (PC642, PC2TEL, PHC, SLCP Series).

Simply unplug the existing Edco card-edge-style protector and plug the Edco PC642PTU (Pass Thru Unit) into the Edco PCB1B base of the circuit to be tested.

The Edco PC642PTU will provide continuity to your circuit, thus eliminating the need for a two-man crew or to rewire your circuit for troubleshooting purposes.

Installation Diagram



NOTE – The Edco PC642PTU is NOT a surge protector. Proper surge protection must be reinstalled on the circuit.

DO NOT daisy chain grounds. NOT intended for shield/drain wire termination.

Install ground in accordance with all applicable codes. The Edco PCB1B base sold separately.

Edco CAT6-5 POE

CAT6/CAT5 Power Over Ethernet

The Edco CAT6-5 POE Series is designed to work on Category 5 **Power-Over-Ethernet** transmission lines as well as Category 6 applications. Ideal to protect expensive equipment against surges and transients entering a building on exposed transmission lines. Available in both female to female and male to female RJ-45 connectors.

Features

- Exceeds CAT5 & 6 transmission values
- CAT5 POE compatible
- CAT6 compatible
- Applications up to 60 VDC @ 300 mA
- 1 year warranty

General Technical Specifications

Operating Voltage	60 VDC
Clamping Voltage	65 VDC
Operating Current	300 mA
Peak Surge Current	60 A (10 x 1000 µs)
Frequency Range	0–250MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	Silicon Avalanche Diode (SAD

Connection Type	RJ-45 Jacks
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	0.8H x 1.0W x 2.3L (FF) 0.8H x 1.0W x 3.0L (MF)
Weight	1 oz

Ordering Information

RJ-45 (FF)	CAT6-5POE-FF
RJ-45 (MF)	CAT6-5POE-MF

Edco LCDP Series

Data Circuit Protection

The Edco LCDP Series is designed to conveniently protect 8 wire, low voltage data circuits and employs two RJ-45 jacks for easy installation. The Edco LCDP utilizes silicon avalanche (solid-state) suppression technology, and exhibits very low capacitance to accommodate high data rates. This unit supports high-speed data rates of over 100 Mbps.

Features

- <1 nanosecond response time
- Line-to-line protection
- Low capacitance
- RJ-45/4 pair protection (8 wire)
- Silicon avalanche design
- Line to ground protection
- 5 year warranty

General Technical Specifications

Operating Voltage	5, 12, 24, 48, 65 VDC
Clamping Voltage	8, 15, 30, 60, 75 VDC
Operating Current	1.5 A
Peak Surge Current (10 x 1000 µs)	008 = 125 A, 015 = 72 A, 030 = 22 A, 060 = 18 A, POE*=15 A
Frequency Range	0—100 MHz
Insertion Loss	< 0.1 dB at 50 MHz
SPD Technology	Silicon Avalanche Diode (SAD)
Connection Type	RJ-45 Jacks
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	1.0H x 2.5W x 4.25L
Weight	3 oz
Certifications	UL 497B (*except LCDP-POE)

Installation

The user equipment plugs into the LCDP's equipment (protected) side, and the LCDP's line (unprotected) side is connected to the incoming line. All 8 conductors are protected. The green ground wire must be bonded to the protected equipment power ground (third wire, green wire safety ground). Do not add length to the ground wire, for it must be kept as short as possible.

Ordering Information

LCDP-008	8 Volts
LCDP-015	15 Volts
LCDP-030	30 Volts
LCDP-060	60 Volts
LCDP-POE	75 Volts

Edco TCS-T1 Series

T1 Line Protection Against Damaging Transients

Protection of your vital T1 lines should be part of the overall power protection plan for your facility. The Edco TCS-T1 Series provides you state-of-the-art protection in a small package.

T1 lines need protection from direct and indirect lightning, as well as power disturbances from nearby AC lines. The Edco TCS-T1 Series prevents T1 line disturbances by providing a level of protection typically not provided by the telephone company.

The Edco TCS-T1 Series devices combine highly reliable, nondegrading Silicon Avalanche Diode (SAD) technology, along with high energy gas tube protection. This technology combination leverages the best aspects of each protection method in a single, reliable design to ensure optimal performance.

The Edco TCS-T1 Series features two models with different clamping voltages. Both the Edco TCS-T1S and the Edco TCS-T1DS support in-line connections via hardwire lugs or standard RJ-45 ports.

Features

- Uses bipolar Silicon Avalanche Diode to provide nondegrading protection
- Provides unparalleled performance in a compact, modular design
- Offers RJ or hardwire connection capabilities to provide installation flexibility
- Comes complete with ring terminals and a male/male RJ-45 cable to make installation easy
- 1 year warranty

General Technical Specifications

Part Number	Edco TCS-T1S
Operating Voltage	170 VDC
Clamping Voltage	211 VDC
Operating Current	1A
Total Peak Surge Current*	40,000 A
Frequency Range	0 to 55MHz
Insertion Loss	< 0.1 dB at 55 MHz
SPD Technology	SAD / GDT
Connection Type	Hardwire Lugs or RJ-45
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2H x 3W x 1.5D
Weight	5 oz
Certifications	UL 497B

Part Number	Edco TCS-T1DS
Operating Voltage	8 VDC
Clamping Voltage	13 VDC
Operating Current	1A
Total Peak Surge Current*	40,000 A
Frequency Range	0 to 55MHz
Insertion Loss	< 0.1 dB at 55 MHz
SPD Technology	SAD / GDT
Connection Type	Hardwire Lugs or RJ-45
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2H x 3W x 1.5D
Weight	5 oz
Certifications	UL 497B

*Based on component specifications for all T1 lines.

Edco TCS-Multi T1 Series

T1/E1 Line Protection

The Edco TCS-Multi T1 Series provides you state-of-the-art surge protection in a scalable backplane connected solution.

The Edco TCS-Multi T1 Series features two models with different clamping voltages, the Edco TCS-T1S-MX and the Edco TCS-T1DS-MX support in-line connections via 4 pin headers, standard RJ-45 ports or both.

Features

- Uses bipolar Silicon Avalanche Diode to provide nondegrading protection
- Protects against lightning surges and internal transient activity
- Provides unparalleled performance in a compact, modular design
- Offers RJ and hardwire capabilities to provide installation flexibility
- Enclosure can be mounted as a telco mount (vertical or horizontal) and 19" rack mount single or double enclosure

General Technical Specifications

Enclosure Dimensions:	
Telco Board Mount	
(Inches)	1.75H x 8.5W x 5.5D
(Centimeters)	4.4H x 21.6W x 14D
19" Rackmount	
(Inches)	1.75H x 19W x 5.5D
(Centimeters)	4.4H x 48.3W x 14D
Primary Technology	Silicon Avalanche Diode
Secondary Technology	Gas Discharge Tube
Interface	RJ-45 and hardwire

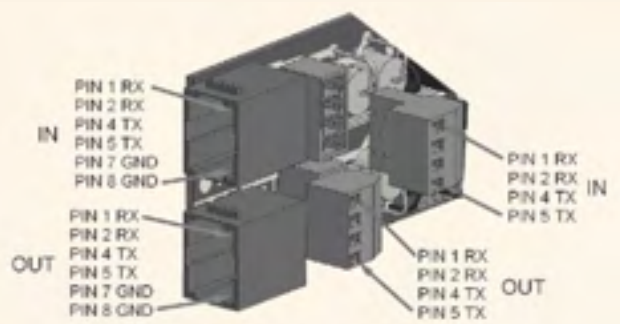
Enclosure Options

Telco Board Mount	
Enclosure Part Number	2000048-00 — Enclosure with backplane and brackets, holds up to 6 cards Comes with 4 cards installed
	2000052-00 — Enclosure without cards
19" Rackmounting	
Single Enclosure	2000049-00 — Mounting bracket, holds up to 6 cards
Dual Enclosure	2000050-00 — holds up to 12 cards Other configurations available

Card Performance Technical Specifications

Part Number	Edco TCS-T1DS-M2
Operating Frequency	Up to 55 MHz
Signal Line Voltage	Up to 8 Vpk
Clamping Voltage	13 Vpk
Response Time	5 ns or less
Peak Pulse Current	10kA*
Nominal Current	4,000 Amp
Leak Capacitance	38 Picofarad
Protection Modes:	
Hardwire	L1-G – L3-G L2-G – L4-G L1-L2 – L3-L4
RJ-48C Standard (RJ-45)	Pin 1-G – Pin 4-G Pin 2-G – Pin 5-G Pin 1-Pin 2 – Pin 4-Pin 5

* Based on component specifications (8 x 20 µs)



TCS-T1S/T1DS-M2
HARD CONNECT
AND RJ

Edco DCB Series

DC Power Protection for Critical Equipment

DC powered equipment is susceptible to transient events that may pass from the AC, Telco, or Coax services to the equipment directly or through other equipment. Harmful transients found in all power services can cause costly damage and downtime of vital DC powered equipment.

In response to this problem, the Edco DCB Series for state-of-the-art surge protection was created to fit various application needs. The Edco DCB Series is available in 24 or 48 VDC configurations, and mounts to an equipment chassis. Its compact size makes the Edco DCB easy to install, even in the tightest spaces.

Alone, or as part of your overall power protection strategy, the Edco DCB Series protects and provides unparalleled performance in power protection for critical equipment.

Features

- Bipolar Silicon Avalanche Diode technology provides fast, nondegrading protection
- Metal Oxide Varistors provide a “second stage” of power protection
- Ideal protection for radios, channel banks, rectifiers, inverters, converters and various other DC powered equipment
- Compact module designed to fit tight spaces where DC power protection is needed
- 1 year warranty

General Technical Specifications

Part Number	Edco DCB-24S & DCB-24SM
Operating Voltage	24 VDC
Clamping Voltage	31 VDC
Operating Current	150A
Total Peak Surge Current	17,000A
Frequency Range	0 to 55 MHz
Insertion Loss	< 0.1 dB at 55 MHz
SPD Technology	SAD / MOV
Connection Type	Standard Lug (S) Mini Lug (M)
Operating Temperature	-40°C to +60°C
Dimensions (Inches)	2.8H x 5.2W x 2D
Weight	12 oz

Part Number	Edco DCB-48
Operating Voltage	48 VDC
Clamping Voltage	83 VDC
Operating Current	150 A
Total Peak Surge Current	52,000A
Frequency Range	0 to 55 MHz
Insertion Loss	< 0.1 dB at 55 MHz
SPD Technology	SAD / MOV
Connection Type	Standard Lug (S) Mini Lug (M)
Operating Temperature	-40°C to +60°C
Dimensions (Inches)	3.1H x 5.25W x 2.4D
Weight	12 oz

Edco CCTV-1

Closed Circuit TV Protection

The Edco CCTV-1 application is specifically designed for lightning protection on closed circuit TV systems. The protector is easily installed with standard type BNC coax connectors. The Edco CCTV-1 offers low loss even at frequencies approaching 500 Mhz. This is important for error-free data communication applications.

Features

- Automatic recovery
- Low insertion loss
- Easily installed
- Shielded case
- Miniature size
- 5 year warranty

General Technical Specifications

Operating Voltage	5 VDC
Clamping Voltage	90 VDC (Spark Over Voltage)
Operating Current	1A
Peak Surge Current	10 kA (8 x 20 µs)
Frequency Range	0 to 1 GHz
Insertion Loss	< 0.5 dB at 500 MHz <1.0 dB at 900 MHz
SPD Technology	Gas Discharge Tube (GDT)
Connection Type	BNC, 75 Ohm
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	0.6H x 0.6W x 2.0L
Weight	1 oz

Edco CX Series

CCTV High Exposure

The Edco CX06-M & Edco CX06-MI Surge Protective Devices (SPDs) implement three-stage hybrid technology. The SPDs address over-voltage transients with a primary Gas Discharge Tube (GDT), and secondary Silicon Avalanche Diode (SAD) components. Over-current protection, e.g. sneak and fault currents, are mitigated with solid-state resettable fuses — PTCs. The Edco CX06-M & Edco CX06-MI SPDs are designed in accordance with NFPA 780 (2004 edition) requirements, with up to 20 kA of surge current capability. The Edco CX06-MI model has an isolated ground and is recommended for use at the camera end.

Features

- Sneak/fault current protection
- Low insertion loss
- Shielded case
- CX06-MI has an isolated ground
- 5 year warranty

General Technical Specifications

Operating Voltage	5 VDC
Clamping Voltage	6 VDC
Operating Current	0.15 A
Peak Surge Current	20 kA (8 x 20 µs)
Frequency Range	0– 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	GDT, SAD, w/Series PTC
Connection Type	BNC, 50/75 Ohm
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	M = 1.5H x 1W x 3.25L MI = 1.5H x 1W x 4L
Weight	M = 2.3 oz MI = 3 oz
Certifications	UL 497B

Ordering Information

Head End	CX06-M
Camera End	CX06-MI

Edco CATV-DF

High Frequency Coax Protector — F-Type

The Edco CATV–DF surge protectors are designed to protect sensitive electronic equipment from damage due to excessive voltage or currents generated by lightning or static build-up.

Applications include direct broadcast satellite systems, HDTV, and cable modems.

The Edco CATV-DF offers low signal loss at frequencies up to 2 gigahertz. Incorporates GDT (Gas Discharge Tube) technology.

Features

- Automatic recovery
- Low insertion loss
- Shielded case
- Easily installed
- 5 year warranty

General Technical Specifications

Operating Voltage	25 VDC
Clamping Voltage	150 VDC (Spark Over Voltage)
Operating Current	1 A
Peak Surge Current	10 kA (8 x 20 µs)

Frequency Range	0 to 2 GHz
Insertion Loss	< 1.0 dB at 1 GHz < 2.0 dB at 2 GHz
SPD Technology	Gas Discharge Tube (GDT)
Connection Type	Type F Female

Operating Temperature	-40°C to +85°C
Dimensions (Inches)	1.25H x 2.5W x 4L
Weight	3 oz

Edco NET Series

SIECOR Network Interface Device

The Edco NET Series is a SIECOR Network Interface Line Module with built-in secondary surge protection. In addition to silicon breakover clamping technology (over-voltage), the Edco NET Series incorporates state-of-the-art resettable over-current protection devices — PTCs.

The over-current circuitry allows normal telephone currents to pass, but quickly switches to a high impedance state when subjected to extended over-currents that can damage telephone system line cards.

Features

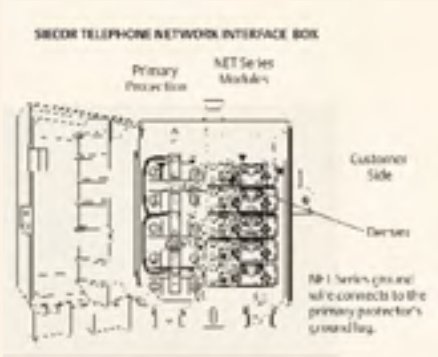
- Tip to ring protection
- Tip, ring to ground protection
- Solid state over-current protection
- Resettable fusing — PTCs
- UL 497A listed
- 5 year warranty

General Technical Specifications

Part Number	Edco NET-015T
Max. Peak Signal Voltage	12
Nominal Breakdown Voltage	15
Max Peak Pulse Current Ip 10 X 1000 µs	124
Typ Cap (pf)	2100
Max Continuous Current	150ma
Nominal Series Resistance	8 Ohms
Part Number	Edco NET-030T
Max. Peak Signal Voltage	24
Nominal Breakdown Voltage	30
Max Peak Pulse Current Ip 10 X 1000 µs	71
Typ Cap (pf)	1180
Max Continuous Current	150ma
Nominal Series Resistance	8 Ohms
Part Number	Edco NET-050T
Max. Peak Signal Voltage	43
Nominal Breakdown Voltage	50
Max Peak Pulse Current Ip 10 X 1000 µs	45
Typ Cap (pf)	900
Max Continuous Current	150ma
Nominal Series Resistance	8 Ohms

Part Number	Edco NET-060T
Max. Peak Signal Voltage	52
Nominal Breakdown Voltage	60
Max Peak Pulse Current Ip 10 X 1000 µs	36
Typ Cap (pf)	750
Max Continuous Current	150ma
Nominal Series Resistance	8 Ohms
Part Number	Edco NET-200T
Max. Peak Signal Voltage	180
Nominal Breakdown Voltage	230
Max Peak Pulse Current Ip 10 X 1000 µs	200A (T-G)+ (R-G)
Typ Cap (pf)	150
Max Continuous Current	150ma
Nominal Series Resistance	8 Ohms
Part Number	Edco NET-TEL
Max. Peak Signal Voltage	220
Nominal Breakdown Voltage	270
Max Peak Pulse Current Ip 10 X 1000 µs	200A (T-G)+ (R-G)
Typ Cap (pf)	150
Max Continuous Current	150ma
Nominal Series Resistance	8 Ohms

Installation



Notes:

A. Never install telephone wiring during a lightning storm.

B. Protectors are intended for indoor or outdoor use within a network interface device (Siecor CAC 7600).

C. If any visible damage has occurred to module, turn off power before attempting to remove or insert another module.

D. Install in accordance with the NEC, Article 800.

Edco FAS-TEL and FAS-31XT

RJ11/RJ31X Telephone Protection

The Edco FAS-TEL and Edco FAS-31XT are single pair telephone or data line protectors that implement advanced two-stage hybrid design. These units address over-voltage transients with silicon breakover devices, while sneak and fault currents are mitigated with PTC technology which consists of solid state resettable fuses.

The Edco FAS-31XT replaces the RJ31X jack with a protected version. Four screw terminals are provided to wire the protector in the same manner as a standard RJ31X jack.

The Edco FAS-TEL is nearly identical to the Edco FAS-31XT except without the shorting bars. Two screw terminals are provided to connect Telco Line to protector. Protected equipment such as modems are plugged into female modular jack on the Edco FAS-TEL.

Features

- <1 nanosecond response time
- Solid-state silicon breakover technology
- Low capacitance
- Over-current protection
- UL 497A listed
- Line-to-line protection
- Line-to-ground protection
- Polyswitch resettable fuses — PTCs
- 5 year warranty

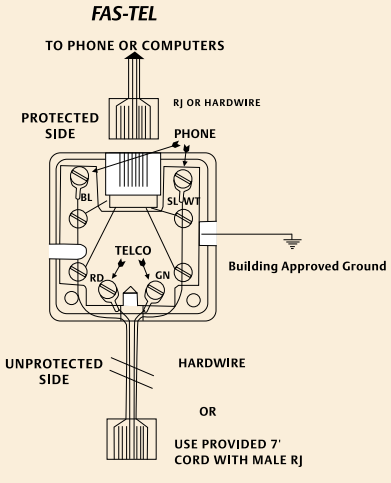
General Technical Specifications

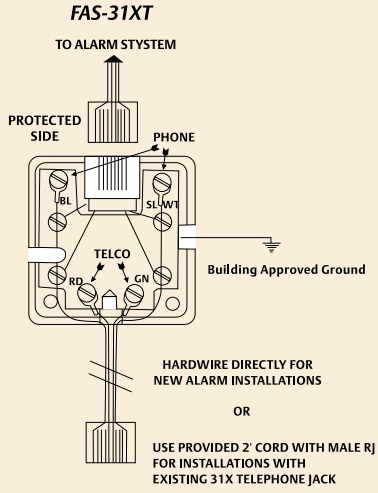
Operating Voltage	43, 52, 220, & 220 VDC
Clamping Voltage	50, 60, 270, & 270 VDC
Operating Current	0.15 A
Peak Surge Current	160 A (10 x 1000 µs T & R to Ground)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	Silicon Avalanche Diode w/ Series PTC
Connection Type	Terminal block with compression lugs IN / RJ connector OUT
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	1H x 2W x 2L
Weight	2 oz
Certifications	UL 497A, CUL

Ordering Information

Digital Phone	FAS-TEL-060T
Analog Phone/Fax/Modem/DSL	FAS-TEL-200T
Alarm System Phone	FAS-31XT

Installation





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